

*Economic Note***Cost of illness studies**

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Cost of illness studies are a type of economic study common in the medical literature, particularly in specialist clinical journals. The aim of a cost of illness study is to identify and measure all the costs of a particular disease, including the direct, indirect, and intangible dimensions. The output, expressed in monetary terms, is an estimate of the total burden of a particular disease to society.<sup>1</sup> It is widely believed that estimating the total societal cost of an illness is a useful aid to policy decision making, and indeed organisations such as the World Bank and the World Health Organization commonly use such studies.<sup>2</sup> However, cost of illness studies have been the cause of much debate among economists.<sup>1 3 4</sup>

Two methods of costing illness exist—the prevalence and incidence approaches. The prevalence method is the commonest and estimates the total cost of a disease incurred in a given year. The more data hungry incidence based approach involves calculating the lifetime costs of cases first diagnosed in a particular year, providing a baseline against which new interventions can be evaluated.<sup>1</sup>

Determining the total cost of an illness is claimed to provide several useful pieces of information. Firstly, it tells us how much society is spending on a particular disease, and by implication the amount that would be saved if the disease were abolished. Secondly, it identifies the different components of cost and the size of the contribution of each sector in society. Such information, it is argued, can help to determine research and funding priorities by highlighting areas where inefficiencies may exist and savings be made.<sup>1 5</sup>

There exist, however, several arguments against undertaking and using the results of cost of illness studies. Simply identifying an area of high expenditure does not provide enough information to suggest inefficiency and waste and so should not automatically take precedence for further scrutiny. An inefficient allocation of resources exists when those resources could generate greater benefits if used elsewhere; without an understanding of the benefits (or health outcomes) gained, it is not possible to assess whether expenditure in a particular area is efficient.

The “cost savings” of either fully or partially preventing a given disease are, to a large extent, illusory. Assuming all the costs attributable to a given disease could be measured accurately and that adequate prevention were introduced, the cost savings from using cost of illness calculations are likely to be overestimated. Firstly, few diseases can be eradicated, so the total costs of treatment will not be saved. Secondly, when prevention fails certain capital investments, such as clinics, will continue to be required to treat those patients who still have the disease, so the marginal cost savings will be less than the average suggested by cost of illness studies. Finally, although treatment costs may be high, the costs of prevention

could easily be much greater and a cost of illness study gives no information on prevention costs.

A further argument against the use of cost of illness studies as an aid to prioritising resources is that a high cost condition is not necessarily amenable to treatment by current medical technology. In contrast, a condition which presents a low cost to society may be fully amenable to low cost prevention, leading to high individual health gains. For example, because its incidence is low, untreated phenylketonuria, which leads to severe learning disability, will not present a great financial burden to society compared with, say, breast cancer. However, prevention is simple and inexpensive and the health gain to the individual is great. Thus, cost of illness studies may divert decision makers’ attention away from areas where important health gains can be made at low cost.

Thus, although widely undertaken, cost of illness studies add little to the creation of an efficient healthcare system. Current research efforts into costs of illness would be better focused on undertaking economic evaluations, such as a cost effectiveness analyses, which involve assessing both costs and outcomes.<sup>6</sup>

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*Endpiece***High road to independence**

Most of those sitting at table with me were medical students. It is common knowledge that they are the only students who talk animatedly about their discipline, their profession, even outside of lecture times. This is bound up with the nature of what they are doing. The object of their studies is at once utterly physical and utterly sublime, as exceedingly simple as it is complex. Medicine engages the whole person because it is engaged with the whole person. Everything the young student learns has immediate practical bearing on a matter of importance, and although using that knowledge may be fraught with difficulties it is in many ways rewarding. Therefore the student applies himself to all that needs knowing and doing, partly because it is interesting of itself, and partly because it is a high road to independence and prosperity.

Johann Wolfgang von Goethe describing his formative years at the law faculty at the University of Strasbourg, 1770-1

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